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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,320	02/12/2004	Vijay Pillai	480062.768	5245
35243 7590 07/12/2007 SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVENUE, SUITE 5400 SEATTLE, WA 98104-7092			EXAMINER BROWN, VERNAL U	
			ART UNIT 2612	PAPER NUMBER
			MAIL DATE 07/12/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/779,320

Applicant(s)

PILLAI ET AL.

Examiner

Vernal U. Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This action is responsive to communication filed on July 02, 2007.

#### ***Response to Amendment***

The examiner has acknowledged the amendment of claims 1, 12, 18, 19, 21.

#### ***Response to Arguments***

Applicant's arguments filed 7/02/07 have been fully considered but they are not persuasive.

Applicant argues on pages 7-8 that the reference of Kenny et al. is silent on teaching transmitting signal at a first and second frequency in the same frequency band. It is the examiners position that Kenny et al. teaches varying the range of the LF carrier signal by adjusting the power and frequency of the LF carrier signal used to identify objects in a particular zone and teaches the range of the LF signal is greater than 30kHz and less than 15MHz (paragraph 021). Kenny therefore teaches the first and second frequencies are in the same frequency band because only LF carrier signal is used to identify objects in zone 1.

Applicant argues on page 9 that the reference of Schuermann teaches increases the read range by increasing the duration of the power pulse and not by increasing the frequency. It is the examiner's that the reference of Schuermann is not relied upon for teaching increasing the read range by increasing the frequency. The reference of Schuermann is only relied upon for teaching varying the read range of a transponder by varying the duration of the power level of the interrogation signal (col. 7 lines 1-7).

Applicant argues on page 10 that the combination of Kenny et al. and Schuermann is improper. It is the examiner's position that the combination of the references of Kenny et al. and

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Schuermann is appropriate because Kenny et al. both the references of Schuermann and Kenny teaches varying the range of interrogation signal in order to identify the objects in the interrogating field and the reference of Kenny et al. teaches adjusting the interrogating range by adjusting the power and frequency of the interrogating signal (paragraph 021).

***Claim Rejections - 35 USC § 112***

Claims 1-27 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation of the first and second frequency are in the same frequency band as recited in claims 1, 12, 18, 19, and 21 are not disclosed in the specification. The specification discloses changing the frequency sent to the tag (page 6 lines 26-28) and also teaches changing the frequency of 2.4 GHz every 300 or 400 milliseconds but does not disclosed changing the first frequency to a second frequency in the same frequency band.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 and 16-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenny et al. US Patent Application 20040036595 in view of Schuermann European Patent Application Publication 0689161.

Regarding claims 1-2, 12, and 23-24, Kenny et al. teaches sending power for a time interval to a tag at first frequency in the low frequency range (paragraph 0018) and transmitting a second signal at second frequency in the high frequency range when a response is not received from the tag after the transmission of the low frequency signal (paragraph 0033). The transmitted signal to the tag contains energy (paragraph 0019) and a first and second power ( $P_j$  and  $P_{j+1}$ ) is inherently associated with the first and second signal respectively. The LF signal is transmitted before the HF signal and is therefore transmitted at different time interval because they are not transmitted at the same time. Kenny et al. also teaches varying the range of the LF carrier signal by adjusting the power and frequency of the LF carrier signal used to identify objects in a particular zone and teaches the range of the LF signal is greater than 30kHz and less than 15MHz (paragraph 021). Kenny therefore teaches the first and second frequencies are in the same frequency band because only LF carrier signal is used to identify objects in zone 1. Kenny et al. teaches the time between sending power ( $P_j$  and  $P_{j+1}$ ) is less than a time in which the tag loses its

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function because the transmission of the response signal from the tag provides evidenced that the function of the tag is not loss due to lack of power (paragraph 0018-0019). Kenny et al. is however silent on teaching the power is transmitted for different time duration. Schuermann in an art related identification system invention varying the read range of a transponder by varying the duration of the power level of the interrogation signal (col. 7 lines 1-7).

It would have been obvious to one of ordinary skill in the art to modify the RFID identification system of Kenny et al. as disclosed by Schuermann because varying the duration of the power level of the interrogation signal provides an alternative means of varying reading range.

Regarding claim 3, Kenny et al. teaches the signals are transmitted in order for the tag to identify themselves (paragraph 0033-0034). The sending of the signal is therefore stopped after no further tag identifies themselves.

Regarding claim 4, Kenny et al. teaches transmitting signal at different range and the power of the signal varied with the range (paragraph 0021).

Regarding claims 5, 9-11, Kenny et al. teaches transmitting the interrogation signal at a first frequency and a second frequency and the range of the interrogation signal is varied with the power and/or frequency (paragraph 0021) but is not explicit on teaching reducing the power  $P_j$  when the time  $t_j$  is too short and the power is a function of time. Schuermann in an art related identification system invention varying the read range of a transponder by varying the duration of the power level of the interrogation signal (abstract).

It would have been obvious to one of ordinary skill in the art to modify the RFID identification system of Kenny et al. as disclosed by Schuermann because varying the duration of

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the power level of the interrogation signal provides an alternative means of varying reading range.

Regarding claims 6-8, Claims 6-8 represents an optimization of the claimed invention of changing the time the interrogation signal is broadcast at a certain frequency. When the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious to one of ordinary skill in the art to optimize the time of the transmitted interrogation signal as claimed because when the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 16, Kenny et al. teaches transmitting a high frequency signal to the tags when no response is received from the tag (paragraph 0033).

Regarding claim 17, Kenny et al. teaches transmitting a high frequency signal to the tags when no response is received from the tag (paragraph 0033) after first sending a LF signal at a first power (paragraph 0018). The time in which the interrogator is expected to received the response from the tag is considered the protocol time limit.

Regarding claims 18-22 and 25-27, Kenny et al. teaches sending power for a time interval to a tag at first frequency in the low frequency range (paragraph 0018) and transmitting a second signal at second frequency in the high frequency range when a response is not received from the tag after the transmission of the low frequency signal (paragraph 0033). The transmitted signal to the tag contains energy (paragraph 0019) and a first and second power ( $P_j$  and  $P_{j+1}$ ) is inherently associated with the first and second signal respectively. Kenny et al. teaches an antenna coupled to the base station for transmitting the signal to the tags (paragraph 0020). Kenny et al. also teaches varying the range of the LF carrier signal by adjusting the power and frequency of the LF carrier signal used to identify objects in a particular zone and teaches the range of the LF signal is greater than 30kHz and less than 15MHz (paragraph 021). Kenny therefore teaches the first and second frequencies are in the same frequency band because only LF carrier signal is used to identify objects in zone 1. Kenny et al. is however silent on teaching the power is transmitted for different time duration. Schuermann in an art related identification system invention varying the read range of a transponder by varying the duration of the power level of the interrogation signal (col. 7 lines 1-7).

It would have been obvious to one of ordinary skill in the art to modify the RFID identification system of Kenny et al. as disclosed by Schuermann because varying the duration of the power level of the interrogation signal provides an alternative means of varying reading range.



Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenny et al. US Patent Application 20040036595 in view of Schuermann European Patent Application Publication 0689161 and further in view of Turner European Patent Application Publication 0899677.

Regarding claims 13-14, Kenny et al. teaches transmitting an interrogation signal and the interrogator receiving a response within a time period (paragraph 0018) but is silent on teaching the response time is less than the reset and the power down time. Turner in an art related identification system teaches the tag response cycle is less than the reset and the power down time (abstract).

It would have been obvious to one of ordinary skill in the art to modify the tracking system of Kenny in view of Schuerman as disclosed by Turner because this enables the tag to transmit its response when powered by the interrogating signal.

Regarding claims 15, Kenny et al. teaches transmitting an interrogation signal and the interrogator receiving a response within a time period (paragraph 0018) but is silent on teaching the response time is less than 20 milliseconds. Turner in an art related identification system teaches the tag response cycle is less than the reset and the power down time (abstract). When the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious to one of ordinary skill in the art to optimize the response time in Kenny et al. in view of Schuerman as disclosed by Turner because when the general

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conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U. Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Vernal Brown  
July 6, 2007

  
EDWIN C. HOLLOWAY III  
PRIMARY EXAMINER